

We claim:

1. An aqueous polymer dispersion Pd) obtainable by free-radical polymerization of a monomer mixture M) comprising

- a) at least one α,β -ethylenically unsaturated amide-group-containing compound of the formula I



where

R^2 is a group of the formula $\text{CH}_2=\text{CR}^4$ - and R^1 and R^3 , independently of one another, are H, alkyl, cycloalkyl, heterocycloalkyl, aryl or hetaryl, or R^1 and R^3 , together with the amide group to which they are bonded, are a lactam with 5 to 8 ring atoms,

- b) at least one free-radically polymerizable crosslinking compound with at least two α,β -ethylenically unsaturated double bonds per molecule,
- c) at least one compound with a free-radically polymerizable α,β -ethylenically unsaturated double bond and at least one cationogenic and/or cationic group per molecule,

in an aqueous medium in the presence of at least one polymeric anionic dispersant D).

2. A polymer dispersion as claimed in claim 1, where the monomer mixture M) additionally comprises at least one further monomer d) which is chosen from esters of α,β -ethylenically unsaturated mono- and dicarboxylic acids with C_1 - C_{30} -alkanols and C_1 - C_{30} -alkanediols, amides of α,β -ethylenically unsaturated mono- and dicarboxylic acids with C_2 - C_{30} -amino alcohols which have a primary or secondary amino group, primary amides of α,β -ethylenically unsaturated monocarboxylic acids and N-alkyl and N,N-dialkyl derivatives thereof, esters of vinyl alcohol and allyl alcohol with C_1 - C_{30} -monocarboxylic acids, vinyl ethers, vinyl aromatics, vinyl halides, vinylidene halides, C_1 - C_8 -monoolefins, nonaromatic hydrocarbons with at least two conjugated double bonds and mixtures thereof.

3. A polymer dispersion as claimed in any of the preceding claims, where the monomer mixture M) additionally comprises at least one compound e) with a free-radically polymerizable α,β -ethylenically unsaturated double bond and an

anionogenic and/or anionic group per molecule, with the proviso that the molar proportion of anionogenic and anionic groups in component e) is lower than the molar proportion of cationogenic and cationic groups in component c).

- 5 4. A polymer dispersion as claimed in any of the preceding claims, where component a) is chosen from N-vinylamides of saturated monocarboxylic acids, N-vinylactams and mixtures thereof.
- 10 5. A polymer dispersion as claimed in any of the preceding claims, where component c) is chosen from esters of α,β -ethylenically unsaturated mono- and dicarboxylic acids with amino alcohols, which may be mono- or dialkylated on the amine nitrogen, amides of α,β -ethylenically unsaturated mono- and dicarboxylic acids with diamines which have at least one primary or secondary amino group, N,N-diallylamine, N,N-diallyl-N-alkylamines and derivatives thereof, vinyl- and allyl-substituted nitrogen heterocycles, vinyl- and allyl-substituted heteroaromatic compounds and mixtures thereof.
- 15 6. A polymer dispersion as claimed in claim 5, where component c) comprises vinylimidazole or an acid salt or a quaternization product thereof.
- 20 7. A polymer dispersion as claimed in claim 3, where component e) is chosen from monoethylenically unsaturated carboxylic acids, sulfonic acids, phosphonic acids and mixtures thereof.
- 25 8. A polymer dispersion as claimed in any of the preceding claims, where the polymeric anionic dispersant D) is chosen from polymers which comprise, in copolymerized form, at least one monomer chosen from acrylic acid, methacrylic acid, maleic acid and mixtures thereof.
- 30 9. A polymer dispersion as claimed in any of the preceding claims, where component a) is used in an amount of from 10 to 90% by weight, preferably 20 to 70% by weight, in particular 30 to 60% by weight, based on the total weight of component a) and the dispersant D).
- 35 10. A polymer dispersion as claimed in any of the preceding claims, where the dispersant D) is used in an amount of from 10 to 90% by weight, preferably 20 to 70% by weight, in particular 30 to 60% by weight, based on the total weight of component a) and the dispersant D).
- 40 11. A polymer dispersion as claimed in any of the preceding claims, where component b) is used in an amount of from 0.0005 to 5% by weight, preferably 0.001 to 2.5% by weight, in particular 0.01 to 1.5% by weight, based on the weight of component a).

12. A polymer dispersion as claimed in any of the preceding claims, where component c) is used in an amount of from 1 to 40% by weight, preferably 5 to 30% by weight, based on the total weight of component a) and the dispersant D).
- 5 13. A polymer dispersion as claimed in any of the preceding claims, where the polymerization additionally takes place in the presence of at least one regulator.
14. A polymer dispersion as claimed in any of the preceding claims, where the pH of the aqueous medium for the polymerization is adjusted to 6 to 8, preferably 6.5 to 10 7.5, particularly preferably 6.8 to 7.
15. A polymer dispersion as claimed in any of the preceding claims, which has an LT value of at most 30%, preferably at most 20%, in particular at most 10%.
- 15 16. A polymer P) obtainable by drying a polymer dispersion Pd), as defined in any of claims 1 to 15.
17. A cosmetic or pharmaceutical composition comprising
- 20 A) at least one polymer dispersion Pd), as defined in any of claims 1 to 15, or a polymer P), as defined in claim 16, and
- B) at least one cosmetically acceptable carrier.
- 25 18. A composition as claimed in claim 17, where component B) is chosen from
- i) water,
- ii) water-miscible organic solvents, preferably C₁-C₄-alkanols,
- iii) oils, fats, waxes,
- 30 iv) esters of C₆-C₃₀-monocarboxylic acids with mono-, di- or trihydric alcohols which are different from iii),
- v) saturated acyclic and cyclic hydrocarbons,
- vi) fatty acids,
- vii) fatty alcohols
- 35 and mixtures thereof.
19. A composition as claimed in either claim 17 or 18, further comprising at least one constituent different from component A) which is chosen from cosmetically active 40 ingredients, emulsifiers, surfactants, preservatives, perfume oils, thickeners, hair polymers, hair and skin conditioners, graft polymers, water-soluble or dispersible silicone-containing polymers, light protection agents, bleaches, gel formers, care agents, colorants, tinting agents, tanning agents, dyes, pigments, consistency-

imparting agents, humectants, refatting agents, collagen, protein hydrolyzates, lipids, antioxidants, antifoams, antistats, emollients and softeners.

- 5 20. A composition as claimed in any of claims 17 to 19 in the form of a gel, foam, spray, ointment, cream, emulsion, suspension, lotion, milk or paste.
- 10 21. The use of a polymer dispersion as defined in any of claims 1 to 15, or of a polymer as defined in claim 16 in skin-cleansing compositions, compositions for the care and protection of the skin, nailcare compositions, preparations for decorative cosmetics and hair-treatment compositions.
- 15 22. The use as claimed in claim 21 in hair-treatment compositions as setting agents and/or as conditioners.
- 20 23. The use as claimed in claim 22, where the composition is in the form of a hair gel, shampoo, setting foam, hair tonic, hairspray or hair mousse.
24. The use of a polymer dispersion as defined in any of claims 1 to 15 or of a polymer as defined in claim 16 as auxiliary in pharmacy, preferably as or in (a) coating(s) for solid drug forms, for modifying rheological properties, as surface-active compound, and as or in (a) coating(s) for the textile, paper, printing and leather industries.